

CLAIMS

- [1] A method for producing an anisotropic film, the method comprising:
disposing a film containing a photoreactive material on a polarizing
5 element;
irradiating the film containing the photoreactive material with light,
through the polarizing element so as to provide an anisotropy to the film
containing the photoreactive material.
- [2] The production method according to claim 1, wherein the film
10 containing the photoreactive material is formed by coating on the polarizing
element a solution or a melt of a photoreactive material and by solidifying the
solution or the melt.
- [3] The production method according to claim 1 or 2, wherein the
photoreactive material has reactivity to light having a wavelength in a range
15 of 1 nm to 780 nm.
- [4] The production method according to any of claims 1 to 3, wherein the
wavelength of the radiated light is in a range of 200 nm to 400 nm.
- [5] The production method according to any of claims 1 to 4, wherein the
wavelength of the radiated light is in a range of 290 nm to 400 nm.
- 20 [6] The production method according to any of claims 1 to 5, wherein the
wavelength of the radiated light is 310 nm.
- [7] The production method according to any of claims 1 to 6, wherein the
polarizing element is at least one element selected from the group consisting
of a prism polarizer, a polarizing filter and a polarizer.
- 25 [8] The production method according to any of claims 1 to 7, wherein the
film containing the photoreactive material is formed directly on the polarizing
element.
- [9] The production method according to any of claims 1 to 7, wherein the
film containing the photoreactive material is formed on the polarizing
30 element with interposition of a protective layer.

[10] The production method according to any of claims 1 to 9, wherein the film containing the photoreactive material further contains a liquid crystalline compound.

[11] The production method according to claim 10, wherein the liquid crystalline compound is at least one liquid crystalline compound selected from the group consisting of a liquid crystalline monomer, a liquid crystalline oligomer and a liquid crystalline polymer.

[12] The production method according to any of claims 1 to 11, wherein the film containing the photoreactive material further contains a non-liquid crystalline polymer.

[13] The production method according to any of claims 1 to 12, wherein the photoreactive material is at least one material selected from the group consisting of a liquid crystalline monomer having a photoreactive site, a liquid crystalline oligomer having a photoreactive site, and a liquid crystalline polymer having a photoreactive site.

[14] An anisotropic film produced by any of the production methods according to claims 1 to 13.

[15] The anisotropic film according to claim 14, which comprises a liquid crystalline alignment film.

[16] The anisotropic film according to claim 14, which comprises an optically anisotropic film.

[17] An optical film comprising the anisotropic film according to claim 14.

[18] A liquid crystal panel comprising a liquid crystal cell and an optical film arranged on at least one surface of the liquid crystal cell, wherein the optical film is the optical film according to claim 17.

[19] A liquid crystal display comprising a liquid crystal panel, wherein the liquid crystal panel is the liquid crystal panel according to claim 18.

[20] An image display device comprising the optical film according to claim 17.